

CLAIMS

What is Claimed is:

1. A duplexer, comprising:
 - a media input nip;
 - an auxiliary roller nip located downstream of the media input nip such that the auxiliary roller nip comprises an auxiliary drive roller that exhibits slippage so that the auxiliary roller nip maintains constant contact with a sheet of media to be duplexed;
 - a backstop located downstream from the auxiliary roller nip; and
 - a media output nip located adjacent to the auxiliary roller nip.
2. The duplexer, as in Claim 1, wherein said duplexer is further comprised of:
 - a print engine operatively connected to said media input nip and said media output nip.
3. The duplexer, as in Claim 1, wherein said auxiliary roller nip is further comprised of:
 - an auxiliary idler roller that maintains substantially continuous contact with said auxiliary drive roller.
4. The duplexer, as in Claim 1, wherein said auxiliary drive roller is further comprised of:
 - a drive roller shaft; and
 - a rotation slippage device operatively connected to said drive roller shaft.
5. The duplexer, as in Claim 4, wherein said rotation slippage device is further comprise of:
 - a clutch.

6. The duplexer, as in Claim 4, wherein said rotation slippage device is further comprise of:
a bearing.

7. The duplexer, as in Claim 4, wherein said rotation slippage device is further comprise of:
a magnetic coupling.

8. The duplexer, as in Claim 4, wherein said rotation slippage device is further comprise of:
a mini-fluid coupling.

9. The duplexer, as in Claim 1, wherein said media output nip is further comprised of:
a media output nip drive roller; and
a media output nip idler roller located substantially adjacent to said media output nip that drive roller.

10. A printing device, comprising:
a print engine; ✓
a media input nip operatively connected to said print engine;
an auxiliary roller nip located downstream of the media input nip such that the auxiliary roller nip comprises an auxiliary drive roller that exhibits slippage so that the auxiliary roller nip maintains constant contact with a sheet of media to be duplexed;
a backstop located downstream from the auxiliary roller nip; and
a media output nip located adjacent to the auxiliary roller nip.

11. The printing device duplexer, as in Claim 10, wherein said auxiliary roller nip is further comprised of:
an auxiliary idler roller that maintains substantially continuous contact with said auxiliary drive roller.

12. The printing device, as in Claim 10, wherein said auxiliary drive roller is further comprised of:

a drive roller shaft; and

a rotation slippage device operatively connected to said drive roller shaft.

13. The printing device, as in Claim 12, wherein said rotation slippage device is further comprise of:

a clutch.

14. The printing device, as in Claim 12, wherein said rotation slippage device is further comprise of:

a bearing.

15. The printing device, as in Claim 12, wherein said rotation slippage device is further comprise of:

a magnetic coupling.

16. The printing device, as in Claim 12, wherein said rotation slippage device is further comprise of:

a mini-fluid coupling.

17. The printing device, as in Claim 10, wherein said media output nip is further comprised of:

a media output nip drive roller; and

a media output nip idler roller located substantially adjacent to said media output nip that drive roller.

18. A method for duplexing, comprising the steps of:

placing an image upon one side of a sheet of media by an image producing device;

transferring said sheet of media by a media input nip towards an auxiliary roller nip;

transferring said sheet by said auxiliary roller nip towards a backstop;

interacting between an edge of said sheet and said backstop such that substantially any further forward motion of said sheet is prohibited;

creating a slippage between said sheet and said auxiliary roller nip;

transferring said sheet by said auxiliary roller nip towards a media output nip; and

transferring said sheet to said image producing device in order to place an image upon the other side of the sheet of media.

19. The method, as in the Claim 18, wherein said method is further comprised of the step of:

placing said images upon both sides of the sheet of media through the use of a print engine.

20. The method, as in Claim 18, wherein said step of transferring said sheet by said auxiliary roller nip towards said back stock is further comprised of the steps of:

continuously contacting an auxiliary idler roller with an auxiliary drive roller to create said auxiliary roller nip; and

causing said auxiliary drive roller to rotate in a first direction.

21. The method, as in Claim 20, wherein said step of creating a slippage between said sheet and said auxiliary roller nip is further comprised of the step of:

creating a slippage between an auxiliary drive roller shaft and said auxiliary drive roller.

22. The method, as in Claim 20, wherein said step of transferring said sheet by said auxiliary roller nip towards a media output nip is further comprised of the steps of:

causing said auxiliary drive roller to rotate in a second direction; and

rotating a media output nip idler roller towards a media output nip drive roller in order to create said media output nip.

23. The method, as in Claim 22, wherein said method is further comprised of the step of:

rotating said media output nip idler roller away from said media output nip drive roller after said sheet of media is transferred to said image producing device in order to place an image upon the other side of the sheet of media.

24. A duplexer, comprising:

a means for creating a media input nip;
a means for creating an auxiliary roller nip located downstream of the media input nip means such that the auxiliary roller nip means comprises an auxiliary drive roller that exhibits slippage so that the auxiliary roller nip means maintains constant contact with a sheet of media to be duplexed;
a means for creating a backstop located downstream from the auxiliary roller nip; and
a means for creating a media output nip located adjacent to the auxiliary roller nip.